

C O N V A I R
A Division of General Dynamics Corporation
(San Diego)

DESIGN INFORMATION BULLETIN

CONVAIR REPORT NO. ZM-22-005

MODEL 22 AIRPLANE

NO: 19.007

PAGE: 1 of 1

DATE: 15 May 1957

LANDING GEAR RETRACTION DESIGN CONDITIONS

The following summary lists the conditions which establish the requirements for landing gear retraction:

1. Detail Model Specification (ZD-22-002):

Guaranteed maximum retraction time: 6 sec. to retract gear, an additional 4 sec. for closing landing gear door.

Total Time: 10 seconds.

2. (A) The hydraulic system components are calculated to meet a design objective of a 6 sec. gear retraction cycle, including closing doors.

(B) ~~same~~ conditions which are part of the above consideration are:

(a) Standard day, sea level, 178,500 lbs. T.O. gross wt., air speed 225 knots (max.) at completion of gear retraction cycle.

(b) 1.0g vertical load factor.

3. Structural requirements will be met and adequate hydraulic pressure will be available to provide complete gear retraction, including door closure in 10 seconds for the following conditions:

(a) 270 knot max. airspeed, 1.0g vert. load factor.

(b) 225 knot max. airspeed, 1.5g vert. load factor.

Prepared by: E. A. Gaut
E. A. Gaut, Design Engineer

T. L. Heid
T. Heid, Structures

Approved by: W. Nugent
W. Nugent, Design Grp. Engr.

L. Garday Moore
L. Garday, Hydraulics

A. J. Savard
A. J. Savard, Project Engr.

M. Dublin
M. Dublin, Dynamics

R. L. Benson
R. L. Benson, Weights

T. L. C. Matteson 6/12/11
T. L. C. Matteson, Aerodynamics